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10/719,929	11/21/2003	John M. Forsythe	1957-6012.1US	4005
24247	7590	03/04/2010	EXAMINER	
TRASKBRITT, P.C. P.O. BOX 2550 SALT LAKE CITY, UT 84110			HYUN, PAUL SANG HWA	
			ART UNIT	PAPER NUMBER
			1797	
			NOTIFICATION DATE	DELIVERY MODE
			03/04/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTOMail@traskbritt.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/719,929	<b>Applicant(s)</b> FORSYTHE ET AL.	
	<b>Examiner</b> PAUL S. HYUN	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9-13 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9-13 and 15-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/13/09</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

The amendment filed by Applicant on November 13, 2009 has been acknowledged. Claims 1, 3-7, 9-13 and 15-21 are pending. Applicant amended claims 1 and 12.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims **1, 3-7, 9-13 and 15-21** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The originally filed Specification does not provide support for the amendment made to claims 1 and 12. Specifically, the amendment recites limitations directed toward determining the amount of sprout inhibitor present on the surface of a crop sample. According to the amendment, said amount is determined by

- 1) calculating a surface area of a crop sample;
- 2) dividing said surface area by the mass of the crop sample to obtain a crop surface area ratio; and
- 3) multiplying said ratio by the measured amount of sprout inhibitor and a calibration ratio.

The originally filed Specification does not disclose a method of determining the amount of sprout inhibitor present on the surface of a crop sample involving the recited steps.

First, the Specification does not provide support for a method step involving dividing the surface area of a crop sample by the mass of the crop sample to obtain a crop surface area ratio. The Specification does provide support for a method that involves calculating the surface area of a crop sample (see [0035]). However, the calculation is used to determine the amount of sprout inhibitor present on a whole potato since the crop sample being analyzed is only a portion of a whole potato. Therefore, the determination of the surface area of a crop sample is necessary to account for that fact that only a small portion of a whole potato is being analyzed. The calculation involving surface area as disclosed by the Specification has nothing to do with determining a ratio of any kind.

Second, the Specification does not provide support for a calculation involving the mass of a crop sample to determine the amount of sprout inhibitor present on the crop sample. The Specification does provide support for a method that involves dividing a measured amount of sprout inhibitor collected from a crop sample by the mass of the crop sample, but this calculation is used to determine the ppm per mass of the crop sample (see [0035]), which does not represent the amount of sprout inhibitor present on the surface of the crop sample.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims **1, 3-7, 9-13 and 15-21** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

According to the claims, the amount of sprout inhibitor present on the surface of a crop sample is determined by:

- 1) calculating the surface area of a crop sample;
- 2) dividing said surface area by the mass of the crop sample to obtain a crop surface area ratio; and
- 3) multiplying said ratio by the measured amount of sprout inhibitor and a calibration ratio.

It is unclear how this calculation results in the determination of the amount of sprout inhibitor present on the surface of a crop sample.

As alluded to above, according to the Specification, a calculation involving mass of a crop sample is used to determine the ppm per mass of the crop sample, which has nothing to do with the amount of sprout inhibitor present on the surface of the crop sample.

With respect to the surface area, according to the Specification, the determination of the surface area of a crop sample is necessary to account for that fact that only a small portion of a whole potato is being analyzed. However, since the claims do not recite that only a small portion of a crop is being analyzed, it is unclear why one is required to measure the surface area of a crop sample to determine the total amount of sprout inhibitor present on a crop sample. For any given crop sample, natural

Art Unit: 1797

degradation notwithstanding, the total amount of sprout inhibitor present on its surface is equal to the measured amount of sprout inhibitor.

Lastly, the significance of the claimed crop surface area ratio in determining the amount of sprout inhibitor present on a crop sample is unclear. The ratio does not appear to be relevant in determining the total amount of sprout inhibitor present on a crop sample.

For examination purposes, since the claims are directed toward determining the total amount of sprout inhibitor present on a crop sample, any method that determines the total amount of sprout inhibitor on a crop sample, regardless of whether the method involves surface area or mass calculations, will be deemed to be within the scope of the claims. That said, the art rejection cited in the previous Office action is maintained.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims **1, 3-7, 9-13 and 15-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wohleb (US 2005/0059162 A1) in view of Anton et al. (US 2001/0053517 A1) and Gordon et al. (US 5,958,714).

Wohleb discloses a kit and a method for quantitatively analyzing chemicals present in soil and water (see Abstract and [0006]). The kit comprises a sorption vial 20 having a sorbent material 27 disposed therein for extracting a chemical of interest (see Fig. 3). In operation, a sample (e.g. soil, liquid) is placed inside vial 20 to expose the sorbent material to the sample. Once the analyte of interest is collected in the sorbent

Art Unit: 1797

material, an extraction solution is added to the sorption vial (if the sample is solid) and the vial is sealed. The vial is then transferred to a lab for further analysis (see Abstract) by gas chromatography (see [0054]). Because the sample is subjected to gas chromatography, the sample can be quantitatively analyzed. The method disclosed by Wohleb differs from the claimed invention in that Wohleb does not disclose the use of an internal standard. Wohleb also does not disclose that the sample can be crops such as tubers collected at a crop storage facility for determining the concentration of sprout inhibiting chemicals present in the crop samples.

With respect to the internal standard, Anton et al. disclose a kit for collecting and analyzing an unknown sample. The kit comprises a known quantity of internal standard that is used to “spike” the sample. The internal standard is used to determine the natural degradation of the sample from the time the sample is collected and the sample is analyzed (see [0007]). This is accomplished by obtaining the ratio of the quantity of the internal standard at the time of sample analysis and the known initial quantity of internal standard used to spike the sample (see [0022]). In light of the disclosure of Anton et al., it would have been obvious to one of ordinary skill in the art to provide the kit disclosed by Wohleb with an internal standard to account for the natural degradation of the sample while the sample is transported from the sample collection site to the laboratory.

With respect to the crop samples, Gordon et al. disclose that many types of chemical contaminants, such as herbicides, are present in foods (see lines 60-65, col. 4). The reference identifies the need to analyze food samples to determine the extent of the contamination of the crops that humans consume (see Abstract and lines 50-55, col.

Art Unit: 1797

18). Specifically, Gordon et al. disclose the steps of acquiring a small portion of a sample (e.g. chopped food) (see lines 60-65, col. 20) and subjecting the sample to various extraction processes to isolate the deleterious chemical of interest. In light of the disclosure of Gordon et al., and given that the method disclosed by Wohleb is directed towards the analysis of contaminants present in samples that are consumed by humans (i.e. soil and water), it would have been obvious to one of ordinary skill in the art to collect tuber samples from a crop storage location and apply the test disclosed by Wohleb to determine the concentration of herbicides present in the tuber samples. Likewise, it would have been obvious to rinse the tuber sample prior to analysis to remove dirt and other analytes of non-interest. Lastly, it would have been obvious to analyze only a section of the tuber to minimize the time and reagents used for the analysis.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but they are moot in view of the new ground of rejection. It should also be noted that Applicant's arguments are directed with respect to Peck (US 5,358,851) and Guyot (US 5,907,925), which were not cited in the most recent Office action mailed on August 13, 2009.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL S. HYUN whose telephone number is (571)272-8559. The examiner can normally be reached on Monday-Friday 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Paul S Hyun/  
Examiner, Art Unit 1797

/Jill Warden/  
Supervisory Patent Examiner, Art Unit 1797

Application/Control Number: 10/719,929  
Art Unit: 1797

Page 9